- 1 -

SEQUENCE LISTING

<110> Applied Research Systems ARS Holding N.V.

<120> NOVEL PREADIPOCYTE FACTOR-1-LIKE POLYPEPTIDES

<130> PCT/812

<150> US60/436,815
<151> 2002-12-27

<160> 18

<170> PatentIn version 3.2

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  Met Pro Ser Gly Cys Arg Cys Leu His Leu Val Cys Leu Leu Cys Ile
  1   5   10   15

ctg ggg gct ccc ggt cag cct gtc cga gcc gat gac tgc agc tcc cac   217
Leu Gly Ala Pro Gly Gln Pro Val Arg Ala Asp Asp Cys Ser Ser His
              20   25   30

tgt gac ctg gcc cac ggc tgc tgt gca cct gac ggc tcc tgc agg tgt   265
Cys Asp Leu Ala His Gly Cys Cys Ala Pro Asp Gly Ser Cys Arg Cys
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gac ccg ggc tgg gag ggg ctg cac tgt gag cgc tgt gtg agg atg cct   313
Asp Pro Gly Trp Glu Gly Leu His Cys Glu Arg Cys Val Arg Met Pro
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ggc tgc cag cac ggt acc tgc cac cag cca tgg cag tgc atc tgc cac   361
Gly Cys Gln His Gly Thr Cys His Gln Pro Trp Gln Cys Ile Cys His
65   70   75   80

agt ggc tgg gca ggc aag ttc tgt gac aaa ggc ttc cat ggg cgt gac   409
Ser Gly Trp Ala Gly Lys Phe Cys Asp Lys Gly Phe His Gly Arg Asp
                    85   90   95

tgc gag cgc aag gct gga ccc tgt gaa cag gca ggc tcc cca tgc cgc   457
Cys Glu Arg Lys Ala Gly Pro Cys Glu Gln Ala Gly Ser Pro Cys Arg

- 2 -

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                    100                    105                    110

     aat ggc ggg cag tgc cag gac gac cag ggc ttt gct ctc aac ttc acg     505
     Asn Gly Gly Gln Cys Gln Asp Asp Gln Gly Phe Ala Leu Asn Phe Thr
 5           115                    120                    125

     tgc cgc tgc ttg gtg ggc ttt gtg ggt gcc cgc tgt gag gta aat gtg     553
     Cys Arg Cys Leu Val Gly Phe Val Gly Ala Arg Cys Glu Val Asn Val
             130                    135                    140
10
     gat gac tgc ctg atg cgg cct tgt gct aac ggt gcc acc tgc ctt gac     601
     Asp Asp Cys Leu Met Arg Pro Cys Ala Asn Gly Ala Thr Cys Leu Asp
     145                    150                    155                160

15   ggc ata aac cgc ttc tcc tgc ctc tgt cct gag ggc ttt gct gga cgc     649
     Gly Ile Asn Arg Phe Ser Cys Leu Cys Pro Glu Gly Phe Ala Gly Arg
                        165                    170                    175

     ttc tgc acc atc aac ctg gat gac tgt gcc agc cgc cca tgc cag aga     697
20   Phe Cys Thr Ile Asn Leu Asp Asp Cys Ala Ser Arg Pro Cys Gln Arg
                        180                    185                    190

     ggg gcc cgc tgt cgg gac cgt gtc cac gac ttc gac tgc ctc tgc ccc     745
     Gly Ala Arg Cys Arg Asp Arg Val His Asp Phe Asp Cys Leu Cys Pro
25           195                    200                    205

     agt ggc tat ggt ggc aag acc tgt gag ctt gtc tta cct gtc cca gac     793
     Ser Gly Tyr Gly Gly Lys Thr Cys Glu Leu Val Leu Pro Val Pro Asp
             210                    215                    220
30
     ccc cca acc aca gtg gac acc cct cta ggg ccc acc tca gct gta gtg     841
     Pro Pro Thr Thr Val Asp Thr Pro Leu Gly Pro Thr Ser Ala Val Val
     225                    230                    235                240

35   gta cct gcc acg ggg cca gcc ccc cac agc gca ggg gct ggt ctg ctg     889
     Val Pro Ala Thr Gly Pro Ala Pro His Ser Ala Gly Ala Gly Leu Leu
                        245                    250                    255

     cgg atc tca gtg aag gag gtg gtg cgg agg caa gag gct ggg cta ggt     937
40   Arg Ile Ser Val Lys Glu Val Val Arg Arg Gln Glu Ala Gly Leu Gly
                        260                    265                    270

     gag cct agc ttg gtg gcc ctg gtg gtg ttt ggg gcc ctc act gct gcc     985
     Glu Pro Ser Leu Val Ala Leu Val Val Phe Gly Ala Leu Thr Ala Ala
45                   275                    280                    285

     ctg gtt ctg gct act gtg ttg ctg acc ctg agg gcc tgg cgc cgg ggt    1033
     Leu Val Leu Ala Thr Val Leu Leu Thr Leu Arg Ala Trp Arg Arg Gly
                 290                    295                    300
50
     gtc tgc ccc cct gga ccc tgt tgc tac cct gcc cca cac tat gct cca    1081
     Val Cys Pro Pro Gly Pro Cys Cys Tyr Pro Ala Pro His Tyr Ala Pro
     305                    310                    315                320

55   gcg tgc cag gac cag gag tgt cag gtt agc atg ctg cca gca ggg ctc    1129
     Ala Cys Gln Asp Gln Glu Cys Gln Val Ser Met Leu Pro Ala Gly Leu
                        325                    330                    335
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- 3 -

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        ccc ctg cca cgt gac ttg ccc cct gag cct gga aag acc aca gca ctg    1177
        Pro Leu Pro Arg Asp Leu Pro Pro Glu Pro Gly Lys Thr Thr Ala Leu
                340                     345                 350

 5      tga tggaggtggg ggctttctgg cccccttcct cacctcttcc acccctcaga          1230

        ctggagtggt ccgttctcac caccccttcag cttgggtaca cacacagagg agacctcagc   1290

        ctcacaccag aaatattatt tttttaatac acagaatgta agatggaatt ttatcaaata    1350

10

        aaactatgaa aatgcaagtg ggctcctatg ccagaaaaac ccacctggcg ttccagatgc    1410

        aagagggcca gagcagaggc ctggttctgg ggaagcctca ggatgctgcc caccaaggag    1470

15      tgatttccaa agagtaatcc agggtgccct tttcccttct ggggaagtgt ggagaggtag    1530

        agccccagag gagaatgtaa acaagcagcc agcacctctg tataggcccg cctggatca     1590

        gagagagggg agaactctgc agggtgtggg attgggctca gggacctccg agtgaggcag    1650

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        Met Pro Ser Gly Cys Arg Cys Leu His Leu Val Cys Leu Leu Cys Ile
        1               5                   10                  15


35      Leu Gly Ala Pro Gly Gln Pro Val Arg Ala Asp Asp Cys Ser Ser His
                        20                  25                  30


        Cys Asp Leu Ala His Gly Cys Cys Ala Pro Asp Gly Ser Cys Arg Cys
40                      35                  40                  45


        Asp Pro Gly Trp Glu Gly Leu His Cys Glu Arg Cys Val Arg Met Pro
                50                  55                  60
45

        Gly Cys Gln His Gly Thr Cys His Gln Pro Trp Gln Cys Ile Cys His
        65                  70                  75                  80

50
        Ser Gly Trp Ala Gly Lys Phe Cys Asp Lys Gly Phe His Gly Arg Asp
                        85                  90                  95


55      Cys Glu Arg Lys Ala Gly Pro Cys Glu Gln Ala Gly Ser Pro Cys Arg
                        100                 105                 110
```

- 4 -

```
        Asn Gly Gly Gln Cys Gln Asp Asp Gln Gly Phe Ala Leu Asn Phe Thr
              115                 120                 125


  5     Cys Arg Cys Leu Val Gly Phe Val Gly Ala Arg Cys Glu Val Asn Val
              130                 135                 140


        Asp Asp Cys Leu Met Arg Pro Cys Ala Asn Gly Ala Thr Cys Leu Asp
 10     145                 150                 155                 160


        Gly Ile Asn Arg Phe Ser Cys Leu Cys Pro Glu Gly Phe Ala Gly Arg
                        165                 170                 175
 15

        Phe Cys Thr Ile Asn Leu Asp Asp Cys Ala Ser Arg Pro Cys Gln Arg
                  180                 185                 190

 20
        Gly Ala Arg Cys Arg Asp Arg Val His Asp Phe Asp Cys Leu Cys Pro
                  195                 200                 205


 25     Ser Gly Tyr Gly Gly Lys Thr Cys Glu Leu Val Leu Pro Val Pro Asp
              210                 215                 220


        Pro Pro Thr Thr Val Asp Thr Pro Leu Gly Pro Thr Ser Ala Val Val
 30     225                 230                 235                 240


        Val Pro Ala Thr Gly Pro Ala Pro His Ser Ala Gly Ala Gly Leu Leu
                        245                 250                 255
 35

        Arg Ile Ser Val Lys Glu Val Val Arg Arg Gln Glu Ala Gly Leu Gly
                  260                 265                 270

 40
        Glu Pro Ser Leu Val Ala Leu Val Val Phe Gly Ala Leu Thr Ala Ala
                  275                 280                 285


 45     Leu Val Leu Ala Thr Val Leu Leu Thr Leu Arg Ala Trp Arg Arg Gly
                  290                 295                 300


        Val Cys Pro Pro Gly Pro Cys Cys Tyr Pro Ala Pro His Tyr Ala Pro
 50     305                 310                 315                 320


        Ala Cys Gln Asp Gln Glu Cys Gln Val Ser Met Leu Pro Ala Gly Leu
                        325                 330                 335
 55

        Pro Leu Pro Arg Asp Leu Pro Pro Glu Pro Gly Lys Thr Thr Ala Leu
                  340                 345                 350
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- 5 -

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   1               5                   10                  15


   His Gly Cys Cys Ala Pro Asp Gly Ser Cys Arg Cys Asp Pro Gly Trp
15             20                  25                  30


   Glu Gly Leu His Cys Glu Arg Cys Val Arg Met Pro Gly Cys Gln His
              35                  40                  45
20

   Gly Thr Cys His Gln Pro Trp Gln Cys Ile Cys His Ser Gly Trp Ala
          50                  55                  60

25
   Gly Lys Phe Cys Asp Lys Gly Phe His Gly Arg Asp Cys Glu Arg Lys
   65                  70                  75                  80


30 Ala Gly Pro Cys Glu Gln Ala Gly Ser Pro Cys Arg Asn Gly Gly Gln
                  85                  90                  95


   Cys Gln Asp Asp Gln Gly Phe Ala Leu Asn Phe Thr Cys Arg Cys Leu
35             100                 105                 110


   Val Gly Phe Val Gly Ala Arg Cys Glu Val Asn Val Asp Asp Cys Leu
              115                 120                 125
40

   Met Arg Pro Cys Ala Asn Gly Ala Thr Cys Leu Asp Gly Ile Asn Arg
          130                 135                 140

45
   Phe Ser Cys Leu Cys Pro Glu Gly Phe Ala Gly Arg Phe Cys Thr Ile
   145                 150                 155                 160


50 Asn Leu Asp Asp Cys Ala Ser Arg Pro Cys Gln Arg Gly Ala Arg Cys
                  165                 170                 175


   Arg Asp Arg Val His Asp Phe Asp Cys Leu Cys Pro Ser Gly Tyr Gly
              180                 185                 190
55

   Gly Lys Thr Cys Glu Leu Val Leu Pro Val Pro Asp Pro Pro Thr Thr
```

- 6 -

```
         195                    200                       205


    Val Asp Thr Pro Leu Gly Pro Thr Ser Ala Val Val Val Pro Ala Thr
5       210             215             220

    Gly Pro Ala Pro His Ser Ala Gly Ala Gly Leu Leu Arg Ile Ser Val
    225             230             235             240
10

    Lys Glu Val Val Arg Arg Gln Glu Ala Gly Leu Gly Glu Pro Ser Leu
                245             250             255
15

    Val Ala Leu Val Val Phe Gly Ala Leu Thr Ala Ala Leu Val Leu Ala
                260             265             270
20

    Thr Val Leu Leu Thr Leu Arg Ala Trp Arg Arg Gly Val Cys Pro Pro
            275             280             285

    Gly Pro Cys Cys Tyr Pro Ala Pro His Tyr Ala Pro Ala Cys Gln Asp
25    ꜟ 290             295             300

    Gln Glu Cys Gln Val Ser Met Leu Pro Ala Gly Leu Pro Leu Pro Arg
    305 ·             310             315             320
30

    Asp Leu Pro Pro Glu Pro Gly Lys Thr Thr Ala Leu
                325             330
```

35
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<211>   358
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<213>   homo sapiens
40
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```
    Met Pro Ser Gly Cys Arg Cys Leu His Leu Val Cys Leu Leu Cys Ile
    1           5               10              15
45

    Leu Gly Ala Pro Gly Gln Pro Val Arg Ala Asp Asp Cys Ser Ser His
                20              25              30

50  ·
    Cys Asp Leu Ala His Gly Cys Cys Ala Pro Asp Gly Ser Cys Arg Cys
            35              40              45

55  Asp Pro Gly Trp Glu Gly Leu His Cys Glu Arg Cys Val Arg Met Pro
            50              55              60
```

- 7 -

```
           Gly Cys Gln His Gly Thr Cys His Gln Pro Trp Gln Cys Ile Cys His
           65              70              75                      80

     5     Ser Gly Trp Ala Gly Lys Phe Cys Asp Lys Gly Phe His Gly Arg Asp
                           85              90                  95

    10     Cys Glu Arg Lys Ala Gly Pro Cys Glu Gln Ala Gly Ser Pro Cys Arg
                       100             105             110

    15     Asn Gly Gly Gln Cys Gln Asp Asp Gln Gly Phe Ala Leu Asn Phe Thr
                   115             120             125

           Cys Arg Cys Leu Val Gly Phe Val Gly Ala Arg Cys Glu Val Asn Val
               130             135             140
    20
           Asp Asp Cys Leu Met Arg Pro Cys Ala Asn Gly Ala Thr Cys Leu Asp
           145             150             155             160

    25     Gly Ile Asn Arg Phe Ser Cys Leu Cys Pro Glu Gly Phe Ala Gly Arg
                           165             170             175

    30     Phe Cys Thr Ile Asn Leu Asp Asp Cys Ala Ser Arg Pro Cys Gln Arg
                       180             185             190

           Gly Ala Arg Cys Arg Asp Arg Val His Asp Phe Asp Cys Leu Cys Pro
                   195             200             205
    35
           Ser Gly Tyr Gly Gly Lys Thr Cys Glu Leu Val Leu Pro Val Pro Asp
               210             215             220

    40     Pro Pro Thr Thr Val Asp Thr Pro Leu Gly Pro Thr Ser Ala Val Val
           225             230             235             240

    45     Val Pro Ala Thr Gly Pro Ala Pro His Ser Ala Gly Ala Gly Leu Leu
                           245             250             255

    50     Arg Ile Ser Val Lys Glu Val Val Arg Arg Gln Glu Ala Gly Leu Gly
                           260             265             270

           Glu Pro Ser Leu Val Ala Leu Val Val Phe Gly Ala Leu Thr Ala Ala
                   275             280             285
    55
           Leu Val Leu Ala Thr Val Leu Leu Thr Leu Arg Ala Trp Arg Arg Gly
                   290             295             300
```

- 8 -

```
        Val Cys Pro Pro Gly Pro Cys Cys Tyr Pro Ala Pro His Tyr Ala Pro
        305             310             315             320
5

        Ala Cys Gln Asp Gln Glu Cys Gln Val Ser Met Leu Pro Ala Gly Leu
                        325             330             335
10

        Pro Leu Pro Arg Asp Leu Pro Pro Glu Pro Gly Lys Thr Thr Ala Leu
                        340             345             350

15      His His His His His His
                        355


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20      <211>   321
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25
        Met Pro Gly Cys Gln His Gly Thr Cys His Gln Pro Trp Gln Cys Ile
        1               5               10              15

30      Cys His Ser Gly Trp Ala Gly Lys Phe Cys Asp Lys Asp Glu His Ile
                        20              25              30

        Cys Thr Thr Gln Ser Pro Cys Gln Asn Gly Gly Gln Cys Met Tyr Asp
35                      35              40              45

        Gly Gly Gly Glu Tyr His Cys Val Cys Leu Pro Gly Phe His Gly Arg
                50              55              60
40

        Asp Cys Glu Arg Lys Ala Gly Pro Cys Glu Gln Ala Gly Ser Pro Cys
        65              70              75              80
45

        Arg Asn Gly Gly Gln Cys Gln Asp Asp Gln Gly Phe Ala Leu Asn Phe
                        85              90              95

50      Thr Cys Arg Cys Leu Val Gly Phe Val Gly Ala Arg Cys Glu Val Asn
                        100             105             110

        Val Asp Asp Cys Leu Met Arg Pro Cys Ala Asn Gly Ala Thr Cys Leu
55                      115             120             125


        Asp Gly Ile Asn Arg Phe Ser Cys Leu Cys Pro Glu Gly Phe Ala Gly
```

-9-

```
               130                 135                 140

        Arg Phe Cys Thr Ile Asn Leu Asp Asp Cys Ala Ser Arg Pro Cys Gln
  5     145             150             155             160

        Arg Gly Ala Arg Cys Arg Asp Arg Val His Asp Phe Asp Cys Leu Cys
 10                     165             170             175

        Pro Ser Gly Tyr Gly Gly Lys Thr Cys Glu Leu Val Leu Pro Val Pro
                    180             185             190

 15     Asp Pro Pro Thr Thr Val Asp Thr Pro Leu Gly Pro Thr Ser Ala Val
                    195             200             205

 20     Val Val Pro Ala Thr Gly Pro Ala Pro His Ser Ala Gly Ala Gly Leu
                210             215             220

        Leu Arg Ile Ser Val Lys Glu Val Val Arg Arg Gln Glu Ala Gly·Leu
 25     225             230             235             240

        Gly Glu Pro Ser Leu Val Ala Leu Val Val Phe Gly Ala Leu Thr Ala
                    245             250             255

 30     Ala Leu Val Leu Ala Thr Val Leu Leu Thr Leu Arg Ala Trp Arg Arg
                    260             265             270

 35     Gly Val Cys Pro Pro Gly Pro Cys Cys Tyr Pro Ala Pro His Tyr Ala
                    275             280             285

 40     Pro Ala Cys Gln Asp Gln Glu Cys Gln Val Ser Met Leu Pro Ala Gly
                290             295             300

        Leu Pro Leu Pro Arg Asp Leu Pro Pro Glu Pro Gly Lys Thr Thr Ala
 45     305             310             315             320

        Leu

 50

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        <211>  315
        <212>  PRT
 55     <213>  homo sapiens

        <400>  6
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5    Cys His Ser Gly Trp Ala Asp Glu His Ile Cys Thr Thr Gln Ser Pro
                 20                  25                  30

10   Cys Gln Asn Gly Gly Gln Cys Met Tyr Asp Gly Gly Glu Tyr His
                 35                  40                  45

     Cys Val Cys Leu Pro Gly Phe His Gly Arg Asp Cys Glu Arg Lys Ala
         50                  55                  60
15

     Gly Pro Cys Glu Gln Ala Gly Ser Pro Cys Arg Asn Gly Gly Gln Cys
     65                  70                  75                  80
20
     Gln Asp Asp Gln Gly Phe Ala Leu Asn Phe Thr Cys Arg Cys Leu Val
                     85                  90                  95

25   Gly Phe Val Gly Ala Arg Cys Glu Val Asn Val Asp Asp Cys Leu Met
                 100                 105                 110

30   Arg Pro Cys Ala Asn Gly Ala Thr Cys Leu Asp Gly Ile Asn Arg Phe
             115                 120                 125

     Ser Cys Leu Cys Pro Glu Gly Phe Ala Gly Arg Phe Cys Thr Ile Asn
         130                 135                 140
35

     Leu Asp Asp Cys Ala Ser Arg Pro Cys Gln Arg Gly Ala Arg Cys Arg
     145                 150                 155                 160
40
     Asp Arg Val His Asp Phe Asp Cys Leu Cys Pro Ser Gly Tyr Gly Gly
                     165                 170                 175

45   Lys Thr Cys Glu Leu Val Leu Pro Val Pro Asp Pro Pro Thr Thr Val
                 180                 185                 190

     Asp Thr Pro Leu Gly Pro Thr Ser Ala Val Val Val Pro Ala Thr Gly
50           195                 200                 205

     Pro Ala Pro His Ser Ala Gly Ala Gly Leu Leu Arg Ile Ser Val Lys
         210                 215                 220
55
     Glu Val Val Arg Arg Gln Glu Ala Gly Leu Gly Glu Pro Ser Leu Val
     225                 230                 235                 240
```

- 11 -

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```
     Ala Leu Val Val Phe Gly Ala Leu Thr Ala Ala Leu Val Leu Ala Thr
                     245                 250                 255
5


     Val Leu Leu Thr Leu Arg Ala Trp Arg Arg Gly Val Cys Pro Pro Gly
                 260                 265                 270
10

     Pro Cys Cys Tyr Pro Ala Pro His Tyr Ala Pro Ala Cys Gln Asp Gln
                 275                 280                 285

15   Glu Cys Gln Val Ser Met Leu Pro Ala Gly Leu Pro Leu Pro Arg Asp
           290                 295                 300


     Leu Pro Pro Glu Pro Gly Lys Thr Thr Ala Leu
20   305                 310                 315


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     <213>  homo sapiens


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     1               5                   10                  15

     ctg ggg gct ccc ggt cag cct gtc cga gcc gat gac tgc agc tcc cac      96
     Leu Gly Ala Pro Gly Gln Pro Val Arg Ala Asp Asp Cys Ser Ser His
40               20                  25                  30

     tgt gac ctg gcc cac ggc tgc tgt gca cct gac ggc tcc tgc agg tgt     144
     Cys Asp Leu Ala His Gly Cys Cys Ala Pro Asp Gly Ser Cys Arg Cys
                 35                  40                  45
45
     gac ccg ggc tgg gag ggg ctg cac tgt gag cgc tgt gtg agg atg cct     192
     Asp Pro Gly Trp Glu Gly Leu His Cys Glu Arg Cys Val Arg Met Pro
             50                  55                  60

50   ggc tgc cag cac ggt acc tgc cac cag cca tgg cag tgc atc tgc cac     240
     Gly Cys Gln His Gly Thr Cys His Gln Pro Trp Gln Cys Ile Cys His
     65                  70                  75                  80

     agt ggc tgg gca gat gaa cat atc tgt acc acg cag tcc ccc tgc cag     288
55   Ser Gly Trp Ala Asp Glu His Ile Cys Thr Thr Gln Ser Pro Cys Gln
                     85                  90                  95

     aat gga ggc cag tgc atg tat gac ggg ggc ggt gag tac cat tgt gtg     336
```

- 12 -

```
           Asn Gly Gly Gln Cys Met Tyr Asp Gly Gly Gly Glu Tyr His Cys Val
                   100                 105                 110

      tgc tta cca ggc ttc cat ggg cgt gac tgc gag cgc aag gct gga ccc       384
 5    Cys Leu Pro Gly Phe His Gly Arg Asp Cys Glu Arg Lys Ala Gly Pro
              115                 120                 125

      tgt gaa cag gca ggc tcc cca tgc cgc aat ggc ggg cag tgc cag gac       432
      Cys Glu Gln Ala Gly Ser Pro Cys Arg Asn Gly Gly Gln Cys Gln Asp
10        130                 135                 140

      gac cag ggc ttt gct ctc aac ttc acg tgc cgc tgc ttg gtg ggc ttt       480
      Asp Gln Gly Phe Ala Leu Asn Phe Thr Cys Arg Cys Leu Val Gly Phe
      145                 150                 155                 160
15
      gtg ggt gcc cgc tgt gag gta aat gtg gat gac tgc ctg atg cgg cct       528
      Val Gly Ala Arg Cys Glu Val Asn Val Asp Asp Cys Leu Met Arg Pro
                      165                 170                 175

20    tgt gct aac ggt gcc acc tgc ctt gac ggc ata aac cgc ttc tcc tgc       576
      Cys Ala Asn Gly Ala Thr Cys Leu Asp Gly Ile Asn Arg Phe Ser Cys
                  180                 185                 190

      ctc tgt cct gag ggc ttt gct gga cgc ttc tgc acc atc aac ctg gat       624
25    Leu Cys Pro Glu Gly Phe Ala Gly Arg Phe Cys Thr Ile Asn Leu Asp
              195                 200                 205

      gac tgt gcc agc cgc cca tgc cag aga ggg gcc cgc tgt cgg gac cgt       672
      Asp Cys Ala Ser Arg Pro Cys Gln Arg Gly Ala Arg Cys Arg Asp Arg
30        210                 215                 220

      gtc cat gac ttc gac tgc ctc tgc ccc agt ggc tat ggt ggc aag act       720
      Val His Asp Phe Asp Cys Leu Cys Pro Ser Gly Tyr Gly Gly Lys Thr
      225                 230                 235                 240
35
      tgt gag ctt gtc tta cct gtc cca gac ccc cca acc aca gtg gac acc       768
      Cys Glu Leu Val Leu Pro Val Pro Asp Pro Pro Thr Thr Val Asp Thr
                      245                 250                 255

40    cct cta ggg ccc acc tca gct gta gtg gta cct gcc acg ggg cca gcc       816
      Pro Leu Gly Pro Thr Ser Ala Val Val Val Pro Ala Thr Gly Pro Ala
                  260                 265                 270

      ccc cac agc gca ggg gct ggt ctg ctg cgg atc tca gtg aag gag gtg       864
45    Pro His Ser Ala Gly Ala Gly Leu Leu Arg Ile Ser Val Lys Glu Val
              275                 280                 285

      gtg cgg agg caa gag gct ggg cta ggt gag cct agc ttg gtg gcc ctg       912
      Val Arg Arg Gln Glu Ala Gly Leu Gly Glu Pro Ser Leu Val Ala Leu
50        290                 295                 300

      gtg gtg ttt ggg gcc ctc act gct gcc ctg gtt ctg gct act gtg ttg       960
      Val Val Phe Gly Ala Leu Thr Ala Ala Leu Val Leu Ala Thr Val Leu
      305                 310                 315                 320
55
      ctg acc ctg agg gcc tgg cgc cgg ggt gtc tgc ccc cct gga ccc tgt      1008
      Leu Thr Leu Arg Ala Trp Arg Arg Gly Val Cys Pro Pro Gly Pro Cys
                  325                 330                 335
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- 13 -

```
        tgc tac cct gcc cca cac tat gct cca gcg tgc cag gac cag gag tgt        1056
        Cys Tyr Pro Ala Pro His Tyr Ala Pro Ala Cys Gln Asp Gln Glu Cys
   ·             340             345             350
5
        cag gtt agc atg ctg cca gca ggg ctc ccc ctg cca cgt gac ttg ccc        1104
        Gln Val Ser Met Leu Pro Ala Gly Leu Pro Leu Pro Arg Asp Leu Pro
                355             360             365
10      cct gag cct gga aag acc aca gca ctg caccatcacc atcaccat              1149
        Pro Glu Pro Gly Lys Thr Thr Ala Leu
            370             375
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     <212> PRT
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     1   5   10   15
25
     Leu Gly Ala Pro Gly Gln Pro Val Arg Ala Asp Asp Cys Ser Ser His
                 20   25   30

30   Cys Asp Leu Ala His Gly Cys Cys Ala Pro Asp Gly Ser Cys Arg Cys
             35   40   45

     Asp Pro Gly Trp Glu Gly Leu His Cys Glu Arg Cys Val Arg Met Pro
35   50   55   60

     Gly Cys Gln His Gly Thr Cys His Gln Pro Trp Gln Cys Ile Cys His
     65   70   75   80
40
     Ser Gly Trp Ala Asp Glu His Ile Cys Thr Thr Gln Ser Pro Cys Gln
                 85   90   95
45
     Asn Gly Gly Gln Cys Met Tyr Asp Gly Gly Gly Glu Tyr His Cys Val
                 100   105   110

50   Cys Leu Pro Gly Phe His Gly Arg Asp Cys Glu Arg Lys Ala Gly Pro
             115   120   125

     Cys Glu Gln Ala Gly Ser Pro Cys Arg Asn Gly Gly Gln Cys Gln Asp
55   130   135   140

     Asp Gln Gly Phe Ala Leu Asn Phe Thr Cys Arg Cys Leu Val Gly Phe
```

- 14 -

```
        145                 150                 155                 160

      Val Gly Ala Arg Cys Glu Val Asn Val Asp Asp Cys Leu Met Arg Pro
5                     165                 170                 175


      Cys Ala Asn Gly Ala Thr Cys Leu Asp Gly Ile Asn Arg Phe Ser Cys
                      180                 185                 190
10

      Leu Cys Pro Glu Gly Phe Ala Gly Arg Phe Cys Thr Ile Asn Leu Asp
                  195             200             205

15
      Asp Cys Ala Ser Arg Pro Cys Gln Arg Gly Ala Arg Cys Arg Asp Arg
          210             215             220

      Val His Asp Phe Asp Cys Leu Cys Pro Ser Gly Tyr Gly Gly Lys Thr
20    225                 230             235             240


      Cys Glu Leu Val Leu Pro Val Pro Asp Pro Pro Thr Thr Val Asp Thr
25                    245             250             255


      Pro Leu Gly Pro Thr Ser Ala Val Val Val Pro Ala Thr Gly Pro Ala
                  260             265             270
30

      Pro His Ser Ala Gly Ala Gly Leu Leu Arg Ile Ser Val Lys Glu Val
              275             280             285

35
      Val Arg Arg Gln Glu Ala Gly Leu Gly Glu Pro Ser Leu Val Ala Leu
          290             295             300


      Val Val Phe Gly Ala Leu Thr Ala Ala Leu Val Leu Ala Thr Val Leu
40    305             310             ·315                320


      Leu Thr Leu Arg Ala Trp Arg Arg Gly Val Cys Pro Pro Gly Pro Cys
45                525             330             335


      Cys Tyr Pro Ala Pro His Tyr Ala Pro Ala Cys Gln Asp Gln Glu Cys
                  340             345             350
50

      Gln Val Ser Met Leu Pro Ala Gly Leu Pro Leu Pro Arg Asp Leu Pro
              355             360             365

55
      Pro Glu Pro Gly Lys Thr Thr Ala Leu
          370             375
```

- 15 -

```
      <210>  9
      <211>  357
      <212>  PRT
  5   <213>  homo sapiens

      <400>  9

      Gly Gln Pro Val Arg Ala Asp Asp Cys Ser Ser His Cys Asp Leu Ala
 10   1               5                   10                  15


      His Gly Cys Cys Ala Pro Asp Gly Ser Cys Arg Cys Asp Pro Gly Trp
               20                  25                  30
 15


      Glu Gly Leu His Cys Glu Arg Cys Val Arg Met Pro Gly Cys Gln His
               35                  40                  45

 20
      Gly Thr Cys His Gln Pro Trp Gln Cys Ile Cys His Ser Gly Trp Ala
               50                  55                  60


 25   Asp Glu His Ile Cys Thr Thr Gln Ser Pro Cys Gln Asn Gly Gly Gln
      65                  70                  75                  80


      Cys Met Tyr Asp Gly Gly Gly Glu Tyr His Cys Val Cys Leu Pro Gly
 30                   85                  90                  95


      Phe His Gly Arg Asp Cys Glu Arg Lys Ala Gly Pro Cys Glu Gln Ala
                   100                 105                 110
 35

      Gly Ser Pro Cys Arg Asn Gly Gly Gln Cys Gln Asp Asp Gln Gly Phe
               115                 120                 125

 40
      Ala Leu Asn Phe Thr Cys Arg Cys Leu Val Gly Phe Val Gly Ala Arg
               130                 135                 140


 45   Cys Glu Val Asn Val Asp Asp Cys Leu Met Arg Pro Cys Ala Asn Gly
      145                 150                 155                 160


      Ala Thr Cys Leu Asp Gly Ile Asn Arg Phe Ser Cys Leu Cys Pro Glu
 50                   165                 170                 175


      Gly Phe Ala Gly Arg Phe Cys Thr Ile Asn Leu Asp Asp Cys Ala Ser
                   180                 185                 190
 55

      Arg Pro Cys Gln Arg Gly Ala Arg Cys Arg Asp Arg Val His Asp Phe
                   195                 200                 205
```

- 16 -

```
      Asp Cys Leu Cys Pro Ser Gly Tyr Gly Gly Lys Thr Cys Glu Leu Val
          210             215             220
 5

      Leu Pro Val Pro Asp Pro Pro Thr Thr Val Asp Thr Pro Leu Gly Pro
      225             230             235             240
10

      Thr Ser Ala Val Val Val Pro Ala Thr Gly Pro Ala Pro His Ser Ala
                  245             250             255

15    Gly Ala Gly Leu Leu Arg Ile Ser Val Lys Glu Val Val Arg Arg Gln
                  260             265             270

      Glu Ala Gly Leu Gly Glu Pro Ser Leu Val Ala Leu Val Val Phe Gly
20                275             280             285

      Ala Leu Thr Ala Ala Leu Val Leu Ala Thr Val Leu Leu Thr Leu Arg
          290             295             300
25

      Ala Trp Arg Arg Gly Val Cys Pro Pro Gly Pro Cys Cys Tyr Pro Ala
      305             310             315             320
30

      Pro His Tyr Ala Pro Ala Cys Gln Asp Gln Glu Cys Gln Val Ser Met
                  325             330             335

35    Leu Pro Ala Gly Leu Pro Leu Pro Arg Asp Leu Pro Pro Glu Pro Gly
                  340             345             350

      Lys Thr Thr Ala Leu
40                355


      <210> 10
      <211> 383
45    <212> PRT
      <213> homo sapiens

      <400> 10

50    Met Pro Ser Gly Cys Arg Cys Leu His Leu Val Cys Leu Leu Cys Ile
      1               5               10              15


      Leu Gly Ala Pro Gly Gln Pro Val Arg Ala Asp Asp Cys Ser Ser His
55                20              25              30


      Cys Asp Leu Ala His Gly Cys Cys Ala Pro Asp Gly Ser Cys Arg Cys
```

- 17 -

```
              35                40  ·              45

   Asp Pro Gly Trp Glu Gly Leu His Cys Glu Arg Cys Val Arg Met Pro
5      50              55              60

   Gly Cys Gln His Gly Thr Cys His Gln Pro Trp Gln Cys Ile Cys His
   65              70              75              80
10

   Ser Gly Trp Ala Asp Glu His Ile Cys Thr Thr Gln Ser Pro Cys Gln
                   85              90              95
15

   Asn Gly Gly Gln Cys Met Tyr Asp Gly Gly Gly Glu Tyr His Cys Val
                   100             105             110
20

   Cys Leu Pro Gly Phe His Gly Arg Asp Cys Glu Arg Lys Ala Gly Pro
                   115             120             125

   Cys Glu Gln Ala Gly Ser Pro Cys Arg Asn Gly Gly Gln Cys Gln Asp
25     130             135             140

   Asp Gln Gly Phe Ala Leu Asn Phe Thr Cys Arg Cys Leu Val Gly Phe
   145             150             155             160
30

   Val Gly Ala Arg Cys Glu Val Asn Val Asp Asp Cys Leu Met Arg Pro
                   165             170             175
35

   Cys Ala Asn Gly Ala Thr Cys Leu Asp Gly Ile Asn Arg Phe Ser Cys
                   180             185             190

40 Leu Cys Pro Glu Gly Phe Ala Gly Arg Phe Cys Thr Ile Asn Leu Asp
                   195             200             205

   Asp Cys Ala Ser Arg Pro Cys Gln Arg Gly Ala Arg Cys Arg Asp Arg
45     210             215             220

   Val His Asp Phe Asp Cys Leu Cys Pro Ser Gly Tyr Gly Gly Lys Thr
   225             230             235             240
50

   Cys Glu Leu Val Leu Pro Val Pro Asp Pro Pro Thr Thr Val Asp Thr
                   245             250             255
55

   Pro Leu Gly Pro Thr Ser Ala Val Val Val Pro Ala Thr Gly Pro Ala
                   260             265             270
```

```
     Pro His Ser Ala Gly Ala Gly Leu Leu Arg Ile Ser Val Lys Glu Val
             275             280             285

5

     Val Arg Arg Gln Glu Ala Gly Leu Gly Glu Pro Ser Leu Val Ala Leu
             290             295             300

10   Val Val Phe Gly Ala Leu Thr Ala Ala Leu Val Leu Ala Thr Val Leu
     305             310             315                     320

     Leu Thr Leu Arg Ala Trp Arg Arg Gly Val Cys Pro Pro Gly Pro Cys
15                   325             330                 335

     Cys Tyr Pro Ala Pro His Tyr Ala Pro Ala Cys Gln Asp Gln Glu Cys
                 340             345             350
20

     Gln Val Ser Met Leu Pro Ala Gly Leu Pro Leu Pro Arg Asp Leu Pro
                 355             360             365

25
     Pro Glu Pro Gly Lys Thr Thr Ala Leu His His His His His His
             370             375             380


30   <210>  11
     <211>  420
     <212>  DNA
     <213>  homo sapiens

35
     <220>
     <221>  CDS
     <222>  (1)..(402)

40   <400>  11
     atg ccc agc ggc tgc cgc tgc ctg cat ctc gtg tgc ctg ttg tgc att      48
     Met Pro Ser Gly Cys Arg Cys Leu His Leu Val Cys Leu Leu Cys Ile
     1               5               10                  15

45   ctg ggg gct ccc ggt cag cct gtc cga gcc gat gac tgc agc tcc cac      96
     Leu Gly Ala Pro Gly Gln Pro Val Arg Ala Asp Asp Cys Ser Ser His
                 20              25                  30

     tgt gac ctg gcc cac ggc tgc tgt gca cct gac ggc tcc tgc agg tgt     144
50   Cys Asp Leu Ala His Gly Cys Cys Ala Pro Asp Gly Ser Cys Arg Cys
                 35              40                  45

     gac ccg ggc tgg gag ggg ctg cac tgt gag cgc tgt gtg agg atg cct     192
     Asp Pro Gly Trp Glu Gly Leu His Cys Glu Arg Cys Val Arg Met Pro
55       50              55              60

     ggc tgc cag cac ggt acc tgc cac cag cca tgg cag tgc atc tgc cac     240
     Gly Cys Gln His Gly Thr Cys His Gln Pro Trp Gln Cys Ile Cys His
```

- 19 -

```
         65                    70                   75                   80

     agt ggc tgg gca ggc aag ttc tgt gac aaa gat gaa cat atc tgt acc     288
     Ser Gly Trp Ala Gly Lys Phe Cys Asp Lys Asp Glu His Ile Cys Thr
  5                  85              90                  95

     acg cag tcc ccc tgc cag aat gga ggc cag tgc atg tat gac ggg ggc     336
     Thr Gln Ser Pro Cys Gln Asn Gly Gly Gln Cys Met Tyr Asp Gly Gly
                     100             105                 110
 10
     ggt gag tac cat tgt gtg tgc tta cca ggc ttc cat ggg cgt gac tgc     384
     Gly Glu Tyr His Cys Val Cys Leu Pro Gly Phe His Gly Arg Asp Cys
                 115             120                 125

 15  gag cgc aag gct gga ccc caccatcacc atcaccat                         420
     Glu Arg Lys Ala Gly Pro
         130


 20  <210>  12
     <211>  134
     <212>  PRT
     <213>  homo sapiens

 25  <400>  12

     Met Pro Ser Gly Cys Arg Cys Leu His Leu Val Cys Leu Leu Cys Ile
     1               5               10                  15
 30
     Leu Gly Ala Pro Gly Gln Pro Val Arg Ala Asp Asp Cys Ser Ser His
                  20              25                  30

 35  Cys Asp Leu Ala His Gly Cys Cys Ala Pro Asp Gly Ser Cys Arg Cys
                 35              40                  45

     Asp Pro Gly Trp Glu Gly Leu His Cys Glu Arg Cys Val Arg Met Pro
 40      50                  55                  60

     Gly Cys Gln His Gly Thr Cys His Gln Pro Trp Gln Cys Ile Cys His
     65                  70                  75                  80
 45
     Ser Gly Trp Ala Gly Lys Phe Cys Asp Lys Asp Glu His Ile Cys Thr
                  85              90                  95
 50
     Thr Gln Ser Pro Cys Gln Asn Gly Gly Gln Cys Met Tyr Asp Gly Gly
                  100             105                 110

 55  Gly Glu Tyr His Cys Val Cys Leu Pro Gly Phe His Gly Arg Asp Cys
                 115             120                 125
```

- 20 -

```
      Glu Arg Lys Ala Gly Pro
          130


5     <210>  13
      <211>  114
      <212>  PRT
      <213>  homo sapiens

10    <400>  13

      Gly Gln Pro Val Arg Ala Asp Asp Cys Ser Ser His Cys Asp Leu Ala
      1             5                 10                  15

15

      His Gly Cys Cys Ala Pro Asp Gly Ser Cys Arg Cys Asp Pro Gly Trp
                  20                  25                  30


20    Glu Gly Leu His Cys Glu Arg Cys Val Arg Met Pro Gly Cys Gln His
                  35                  40                  45


      Gly Thr Cys His Gln Pro Trp Gln Cys Ile Cys His Ser Gly Trp Ala
25        50                  55                  60


      Gly Lys Phe Cys Asp Lys Asp Glu His Ile Cys Thr Thr Gln Ser Pro
      65                  70                  75                  80

30

      Cys Gln Asn Gly Gly Gln Cys Met Tyr Asp Gly Gly Gly Glu Tyr His
                      85                  90                  95

35

      Cys Val Cys Leu Pro Gly Phe His Gly Arg Asp Cys Glu Arg Lys Ala
                  100                 105                 110


40    Gly Pro



      <210>  14
45    <211>  140
      <212>  PRT
      <213>  homo sapiens

      <400>  14
50
      Met Pro Ser Gly Cys Arg Cys Leu His Leu Val Cys Leu Leu Cys Ile
      1             5                 10                  15


55    Leu Gly Ala Pro Gly Gln Pro Val Arg Ala Asp Asp Cys Ser Ser His
                  20                  25                  30
```

- 21 -

```
      Cys Asp Leu Ala His Gly Cys Cys Ala Pro Asp Gly Ser Cys Arg Cys
              35                  40                  45

  5   Asp Pro Gly Trp Glu Gly Leu His Cys Glu Arg Cys Val Arg Met Pro
              50                  55                  60

 10   Gly Cys Gln His Gly Thr Cys His Gln Pro Trp Gln Cys Ile Cys His
      65                  70                  75                  80

      Ser Gly Trp Ala Gly Lys Phe Cys Asp Lys Asp Glu His Ile Cys Thr
 15                       85                  90                  95

      Thr Gln Ser Pro Cys Gln Asn Gly Gly Gln Cys Met Tyr Asp Gly Gly
                      100                 105                 110

 20   Gly Glu Tyr His Cys Val Cys Leu Pro Gly Phe His Gly Arg Asp Cys
                      115                 120                 125

 25   Glu Arg Lys Ala Gly Pro His His His His His His
              130                 135                 140


      <210> 15
 30   <211> 1167
      <212> DNA
      <213> homo sapiens


 35   <220>
      <221> CDS
      <222> (1)..(1149)

      <400> 15
 40   atg ccc agc ggc tgc cgc tgc ctg cat ctc gtg tgc ctg ttg tgc att    48
      Met Pro Ser Gly Cys Arg Cys Leu His Leu Val Cys Leu Leu Cys Ile
      1               5                   10                  15

      ctg ggg gct ccc ggt cag cct gtc cga gcc gat gac tgc agc tcc cac    96
 45   Leu Gly Ala Pro Gly Gln Pro Val Arg Ala Asp Asp Cys Ser Ser His
                      20                  25                  30

      tgt gac ctg gcc cac ggc tgc tgt gca cct gac ggc tcc tgc agg tgt    144
      Cys Asp Leu Ala His Gly Cys Cys Ala Pro Asp Gly Ser Cys Arg Cys
 50           35                  40                  45

      gac ccg ggc tgg gag ggg ctg cac tgt gag cgc tgt gtg agg atg cct    192
      Asp Pro Gly Trp Glu Gly Leu His Cys Glu Arg Cys Val Arg Met Pro
              50                  55                  60
 55
      ggc tgc cag cac ggt acc tgc cac cag cca tgg cag tgc atc tgc cac    240
      Gly Cys Gln His Gly Thr Cys His Gln Pro Trp Gln Cys Ile Cys His
      65                  70                  75                  80
```

- 22 -

```
agt ggc tgg gca ggc aag ttc tgt gac aaa gat gaa cat atc tgt acc      288
Ser Gly Trp Ala Gly Lys Phe Cys Asp Lys Asp Glu His Ile Cys Thr
                85              90                  95

acg cag tcc ccc tgc cag aat gga ggc cag tgc atg tat gac ggg ggc      336
Thr Gln Ser Pro Cys Gln Asn Gly Gly Gln Cys Met Tyr Asp Gly Gly
            100             105             110

ggt gag tac cat tgt gtg tgc tta cca ggc ttc cat ggg cgt gac tgc      384
Gly Glu Tyr His Cys Val Cys Leu Pro Gly Phe His Gly Arg Asp Cys
            115             120             125

gag cgc aag gct gga ccc tgt gaa cag gca ggc tcc cca tgc cgc aat      432
Glu Arg Lys Ala Gly Pro Cys Glu Gln Ala Gly Ser Pro Cys Arg Asn
        130             135             140

ggc ggg cag tgc cag gac gac cag ggc ttt gct ctc aac ttc acg tgc      480
Gly Gly Gln Cys Gln Asp Asp Gln Gly Phe Ala Leu Asn Phe Thr Cys
145             150             155             160

cgc tgc ttg gtg ggc ttt gtg ggt gcc cgc tgt gag gta aat gtg gat      528
Arg Cys Leu Val Gly Phe Val Gly Ala Arg Cys Glu Val Asn Val Asp
                165             170             175

gac tgc ctg atg cgg cct tgt gct aac ggt gcc acc tgc ctt gac ggc      576
Asp Cys Leu Met Arg Pro Cys Ala Asn Gly Ala Thr Cys Leu Asp Gly
            180             185             190

ata aac cgc ttc tcc tgc ctc tgt cct gag ggc ttt gct gga cgc ttc      624
Ile Asn Arg Phe Ser Cys Leu Cys Pro Glu Gly Phe Ala Gly Arg Phe
        195             200             205

tgc acc atc aac ctg gat gac tgt gcc agc cgc cca tgc cag aga ggg      672
Cys Thr Ile Asn Leu Asp Asp Cys Ala Ser Arg Pro Cys Gln Arg Gly
        210             215             220

gcc cgc tgt cgg gac cgt gtc cac gac ttc gac tgc ctc tgc ccc agt      720
Ala Arg Cys Arg Asp Arg Val His Asp Phe Asp Cys Leu Cys Pro Ser
225             230             235             240

ggc tat ggt ggc aag acc tgt gag ctt gtc tta cct gtc cca gac ccc      768
Gly Tyr Gly Gly Lys Thr Cys Glu Leu Val Leu Pro Val Pro Asp Pro
            245             250             255

cca acc aca gtg gac acc cct cta ggg ccc acc tca gct gta gtg gta      816
Pro Thr Thr Val Asp Thr Pro Leu Gly Pro Thr Ser Ala Val Val Val
            260             265             270

cct gcc acg ggg cca gcc ccc cac agc gca ggg gct ggt ctg ctg cgg      864
Pro Ala Thr Gly Pro Ala Pro His Ser Ala Gly Ala Gly Leu Leu Arg
            275             280             285

atc tca gtg aag gag gtg gtg cgg agg caa gag gct ggg cta ggt gag      912
Ile Ser Val Lys Glu Val Val Arg Arg Gln Glu Ala Gly Leu Gly Glu
        290             295             300

cct agc ttg gtg gcc ctg gtg gtg ttt ggg gcc ctc act gct gcc ctg      960
```

- 23 -

```
     Pro Ser Leu Val Ala Leu Val Val Phe Gly Ala Leu Thr Ala Ala Leu
     305             310                 315                 320

  5  gtt ctg gct act gtg ttg ctg acc ctg agg gcc tgg cgc cgg ggt gtc      1008
     Val Leu Ala Thr Val Leu Leu Thr Leu Arg Ala Trp Arg Arg Gly Val
                     325                 330                 335

     tgc ccc cct gga ccc tgt tgc tac cct gcc cca cac tat gct cca gcg      1056
 10  Cys Pro Pro Gly Pro Cys Cys Tyr Pro Ala Pro His Tyr Ala Pro Ala
                     340                 345                 350

     tgc cag gac cag gag tgt cag gtt agc atg ctg cca gca ggg ctc ccc      1104
     Cys Gln Asp Gln Glu Cys Gln Val Ser Met Leu Pro Ala Gly Leu Pro
                 355                 360                 365
 15
     ctg cca cgt gac ttg ccc cct gag cct gga aag acc aca gca ctg          1149
     Leu Pro Arg Asp Leu Pro Pro Glu Pro Gly Lys Thr Thr Ala Leu
             370                 375                 380

 20  caccatcacc atcaccat                                                   1167


     <210>  16
     <211>  383
 25  <212>  PRT
     <213>  homo sapiens

     <400>  16

 30  Met Pro Ser Gly Cys Arg Cys Leu His Leu Val Cys Leu Leu Cys Ile
     1               5                   10                  15


     Leu Gly Ala Pro Gly Gln Pro Val Arg Ala Asp Asp Cys Ser Ser His
 35              20              25                  30


     Cys Asp Leu Ala His Gly Cys Cys Ala Pro Asp Gly Ser Cys Arg Cys
             35              40                  45
 40

     Asp Pro Gly Trp Glu Gly Leu His Cys Glu Arg Cys Val Arg Met Pro
             50              55                  60
 45
     Gly Cys Gln His Gly Thr Cys His Gln Pro Trp Gln Cys Ile Cys His
     65              70                  75                  80


 50  Ser Gly Trp Ala Gly Lys Phe Cys Asp Lys Asp Glu His Ile Cys Thr
                     85                  90                  95


     Thr Gln Ser Pro Cys Gln Asn Gly Gly Gln Cys Met Tyr Asp Gly Gly
 55              100                 105                 110


     Gly Glu Tyr His Cys Val Cys Leu Pro Gly Phe His Gly Arg Asp Cys
```

- 24 -

```
              115                 120                 125

   5   Glu Arg Lys Ala Gly Pro Cys Glu Gln Ala Gly Ser Pro Cys Arg Asn
           130                 135                 140

  10   Gly Gly Gln Cys Gln Asp Asp Gln Gly Phe Ala Leu Asn Phe Thr Cys
       145                 150                 155                 160

  15   Arg Cys Leu Val Gly Phe Val Gly Ala Arg Cys Glu Val Asn Val Asp
                       165                 170                 175

  20   Asp Cys Leu Met Arg Pro Cys Ala Asn Gly Ala Thr Cys Leu Asp Gly
                   180                 185                 190

  25   Ile Asn Arg Phe Ser Cys Leu Cys Pro Glu Gly Phe Ala Gly Arg Phe
               195                 200                 205

  30   Cys Thr Ile Asn Leu Asp Asp Cys Ala Ser Arg Pro Cys Gln Arg Gly
           210                 215                 220

       Ala Arg Cys Arg Asp Arg Val His Asp Phe Asp Cys Leu Cys Pro Ser
       225                 230      .          235                 240

  35   Gly Tyr Gly Gly Lys Thr Cys Glu Leu Val Leu Pro Val Pro Asp Pro
                       245                 250                 255

  40   Pro Thr Thr Val Asp Thr Pro Leu Gly Pro Thr Ser Ala Val Val Val
                   260                 265                 270

  45   Pro Ala Thr Gly Pro Ala Pro His Ser Ala Gly Ala Gly Leu Leu Arg
               275                 280                 285

       Ile Ser Val Lys Glu Val Val Arg Arg Gln Glu Ala Gly Leu Gly Glu
           290                 295                 300

  50   Pro Ser Leu Val Ala Leu Val Val Phe Gly Ala Leu Thr Ala Ala Leu
       305                 310                 315                 320

  55   Val Leu Ala Thr Val Leu Leu Thr Leu Arg Ala Trp Arg Arg Gly Val
                   325                 330                 335

       Cys Pro Pro Gly Pro Cys Cys Tyr Pro Ala Pro His Tyr Ala Pro Ala
                   340                 345                 350
```

- 25 -

```
        Cys Gln Asp Gln Glu Cys Gln Val Ser Met Leu Pro Ala Gly Leu Pro
                355             360             365

5
        Leu Pro Arg Asp Leu Pro Pro Glu Pro Gly Lys Thr Thr Ala Leu
                370             375             380


10      <210>  17
        <211>  363
        <212>  PRT
        <213>  homo sapiens

15      <400>  17

        Gly Gln Pro Val Arg Ala Asp Asp Cys Ser Ser His Cys Asp Leu Ala
        1               5               10              15

20
        His Gly Cys Cys Ala Pro Asp Gly Ser Cys Arg Cys Asp Pro Gly Trp
                20              25              30


25      Glu Gly Leu His Cys Glu Arg Cys Val Arg Met Pro Gly Cys Gln His
                35              40              45


30      Gly Thr Cys His Gln Pro Trp Gln Cys Ile Cys His Ser Gly Trp Ala
            50              55              60


        Gly Lys Phe Cys Asp Lys Asp Glu His Ile Cys Thr Thr Gln Ser Pro
        65              70              75              80

35
        Cys Gln Asn Gly Gly Gln Cys Met Tyr Asp Gly Gly Gly Glu Tyr His
                85              90              95

40
        Cys Val Cys Leu Pro Gly Phe His Gly Arg Asp Cys Glu Arg Lys Ala
                100             105             110


45      Gly Pro Cys Glu Gln Ala Gly Ser Pro Cys Arg Asn Gly Gly Gln Cys
                115             120             125


        Gln Asp Asp Gln Gly Phe Ala Leu Asn Phe Thr Cys Arg Cys Leu Val
50              130             135             140


        Gly Phe Val Gly Ala Arg Cys Glu Val Asn Val Asp Asp Cys Leu Met
        145             150             155             160

55
        Arg Pro Cys Ala Asn Gly Ala Thr Cys Leu Asp Gly Ile Asn Arg Phe
                        165             170             175
```

- 26 -

```
        Ser Cys Leu Cys Pro Glu Gly Phe Ala Gly Arg Phe Cys Thr Ile Asn
                    180                 185                 190
5


        Leu Asp Asp Cys Ala Ser Arg Pro Cys Gln Arg Gly Ala Arg Cys Arg
                195                 200                 205

10
        Asp Arg Val His Asp Phe Asp Cys Leu Cys Pro Ser Gly Tyr Gly Gly
                210                 215                 220


15      Lys Thr Cys Glu Leu Val Leu Pro Val Pro Asp Pro Pro Thr Thr Val
        225                 230                 235                 240


        Asp Thr Pro Leu Gly Pro Thr Ser Ala Val Val Val Pro Ala Thr Gly
20                      245                 250                 255


        Pro Ala Pro His Ser Ala Gly Ala Gly Leu Leu Arg Ile Ser Val Lys
                    260                 265                 270

25
        Glu Val Val Arg Arg Gln Glu Ala Gly Leu Gly Glu Pro Ser Leu Val
                    275                 280                 285

30
        Ala Leu Val Val Phe Gly Ala Leu Thr Ala Ala Leu Val Leu Ala Thr
                    290                 295                 300


35      Val Leu Leu Thr Leu Arg Ala Trp Arg Arg Gly Val Cys Pro Pro Gly
        305                 310                 315                 320


        Pro Cys Cys Tyr Pro Ala Pro His Tyr Ala Pro Ala Cys Gln Asp Gln
40                      325                 330                 335


        Glu Cys Gln Val Ser Met Leu Pro Ala Gly Leu Pro Leu Pro Arg Asp
                    340                 345                 350

45
        Leu Pro Pro Glu Pro Gly Lys Thr Thr Ala Leu
                    355                 360

50
        <210>   18
        <211>   389
        <212>   PRT
        <213>   homo sapiens
55
        <400>   18

        Met Pro Ser Gly Cys Arg Cys Leu His Leu Val Cys Leu Leu Cys Ile
```

```
        1                    5                    10                   15

 5      Leu Gly Ala Pro Gly Gln Pro Val Arg Ala Asp Asp Cys Ser Ser His
                    20                  25                  30


        Cys Asp Leu Ala His Gly Cys Cys Ala Pro Asp Gly Ser Cys Arg Cys
                    35                  40                  45
10


        Asp Pro Gly Trp Glu Gly Leu His Cys Glu Arg Cys Val Arg Met Pro
                50                  55                  60

15
        Gly Cys Gln His Gly Thr Cys His Gln Pro Trp Gln Cys Ile Cys His
        65                  70                  75                  80


20      Ser Gly Trp Ala Gly Lys Phe Cys Asp Lys Asp Glu His Ile Cys Thr
                        85                  90                  95


        Thr Gln Ser Pro Cys Gln Asn Gly Gly Gln Cys Met Tyr Asp Gly Gly
25                  100                 105                 110


        Gly Glu Tyr His Cys Val Cys Leu Pro Gly Phe His Gly Arg Asp Cys
                    115                 120                 125
30


        Glu Arg Lys Ala Gly Pro Cys Glu Gln Ala Gly Ser Pro Cys Arg Asn
                130                 135                 140


35
        Gly Gly Gln Cys Gln Asp Asp Gln Gly Phe Ala Leu Asn Phe Thr Cys
        145                 150  .              155                 160


40      Arg Cys Leu Val Gly Phe Val Gly Ala Arg Cys Glu Val Asn Val Asp
                        165                 170                 175


        Asp Cys Leu Met Arg Pro Cys Ala Asn Gly Ala Thr Cys Leu Asp Gly
45                  180                 185                 190


        Ile Asn Arg Phe Ser Cys Leu Cys Pro Glu Gly Phe Ala Gly Arg Phe
                    195                 200                 205
50


        Cys Thr Ile Asn Leu Asp Asp Cys Ala Ser Arg Pro Cys Gln Arg Gly
                210                 215                 220


55
        Ala Arg Cys Arg Asp Arg Val His Asp Phe Asp Cys Leu Cys Pro Ser
        225                 230                 235                 240
```

- 28 -

```
      Gly Tyr Gly Gly Lys Thr Cys Glu Leu Val Leu Pro Val Pro Asp Pro
                      245             250         255
 5
      Pro Thr Thr Val Asp Thr Pro Leu Gly Pro Thr Ser Ala Val Val Val
                  260             265         270
10    Pro Ala Thr Gly Pro Ala Pro His Ser Ala Gly Ala Gly Leu Leu Arg
                  275             280         285
      Ile Ser Val Lys Glu Val Val Arg Arg Gln Glu Ala Gly Leu Gly Glu
15        290             295         300
      Pro Ser Leu Val Ala Leu Val Val Phe Gly Ala Leu Thr Ala Ala Leu
          305             310         315             320
20
      Val Leu Ala Thr Val Leu Leu Thr Leu Arg Ala Trp Arg Arg Gly Val
                      325             330         335
25
      Cys Pro Pro Gly Pro Cys Cys Tyr Pro Ala Pro His Tyr Ala Pro Ala
                  340             345         350
30    Cys Gln Asp Gln Glu Cys Gln Val Ser Met Leu Pro Ala Gly Leu Pro
                  355             360         365
      Leu Pro Arg Asp Leu Pro Pro Glu Pro Gly Lys Thr Thr Ala Leu His
35        370             375         380
      His His His His His
          385
40
```